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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,686	09/09/2003	Hiroyuki Yoshimura	FUJI:277	2152

7590 08/22/2005  
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EXAMINER

MERCEDES, DISMERY E

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/658,686

Applicant(s)

YOSHIMURA ET AL.

Examiner

Dismery E. Mercedes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/2/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 2/2/2004 has being considered by the examiner.

### ***Drawings***

2. The drawings are objected to because: Fig.3 is not clear. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (pages 1-2 & Figs. 1A-1C) in view of Zook et al. (US 5,737,142).

AAPA discloses a master disc, comprising: a magnetic layer containing converted bit information embedded therein for transferring to a magnetic recording medium as a magnetic pattern (page 1-2, paragraph 0004).

AAPA does not specifically disclose wherein the converted bit information contains a predetermined number of converted blocks each containing at least three converted bits, each of the converted blocks containing at least one bit having a different value.

However, Zook et al. discloses wherein the converted bit information (or the binary track number) contains a predetermined number of converted clocks, each containing at least three converted bits (as depicted in Figs. 4-5, the channel data each contains at least 3 bits), each of the converted blocks containing at least one bit having a different value (as depicted in Figs 4 & 5). Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention to modify upon the master disc as disclosed by AAPA, the motivation being because it would provide the medium as disclosed by AAPA with the enhanced capability of providing an efficient encoding scheme for encoding servo track addresses, thus maximizing user data density and minimize the RLL (0,k) (run length limited) servo decoder's complexity and cost.

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As to Claim 2, Zook et al. further discloses wherein each of the converted blocks contains equal number of bits having a value of "0" and a value of "1" (as depicted in Fig.4, the channel data, the last four sequences have the same number of bits having a value of "0" and "1").

As to Claim 3, Zook et al. further discloses wherein the converted bit information is converted from bit information having a predetermined number of blocks each containing two bits to 3 to 10 bits (as depicted in Fig.4, the bit information being converted has 5 bits).

As to Claim 4, Zook et al. further discloses wherein each of the converted blocks contains four bits, with one or two different bits between the first and last bits of the same bit value being different so that all of a sequence of three or more of the bits do not contain the same bit value (as depicted in Fig.4, "0101100", "0101010", "0011010" each have first and last bit with same bit value with one or two bits being different).

As to Claims 5-8, Zook et al. further discloses wherein the bit information is servo address information or cylinder information (as depicted in Fig.4, the bit information is a binary track number).

As to Claims 14-18 are method claims corresponding to the apparatus of claims 1-5, are therefore rejected for the same reasons as set forth in the rejections of claims 1-5, supra.

As to Claims 9-13 have similar limitations to those treated in the above rejection of claims 1-5 and are met by the references as discussed above.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Coene (US 6,404,355 B1), McLaughlin et al. (US 5,781,130), Kobayashi et al. (US 2005/0122889 A1); Hino et al. (US 2004/0095831), Weng (US 5,184,125), Saito et al. (US 6,747,823 B2).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dismery E. Mercedes whose telephone number is 571-272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dismery E Mercedes  
Examiner  
Art Unit 2651

DM



DAVID HUDSPETH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600